

The Invention Claimed Is:

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5 1. An interface for transmitting data messages between a telephone switching system and an adjunct processor and for translating said data messages between data message protocols, said interface comprising:

a hardware component including;

first and second connectors for connecting the interface to the telephone switching system, and

10 a third connector for connecting the interface to the adjunct processor, and

a software component including at least two data transmission links between the telephone switching system and the adjunct processor.

15 2. An interface as defined in claim 1, wherein said software alternates the transmission of data messages among said links.

3. An interface as defined in claim 1, wherein if one of said at least two transmission links fails, said

20 software transmits the data messages along a remaining number of said links.

4. An interface as defined in claim 1, wherein said data messages are translated from API protocol to SMSI protocol.

25 5. An interface as defined in claim 1, wherein said software includes at least two device driver algorithms to filter erroneous frames from the data messages.

6. An interface as defined in claim 1, wherein said software includes at least two protocol stack algorithms to validate the data messages.

5 7. An interface as defined in claim 6, wherein said software includes a splitting task which receives messages from said at least two protocol stack algorithms.

10 8. An interface as defined in claim 1, wherein said software includes a splitting task algorithm to split the data messages into subsets.

9. An interface as defined in claim 1, wherein said software includes a combining task algorithm to combine data messages into sets.

15 10. An interface as defined in claim 1, wherein said software includes a combining task algorithm which alternates transmission of data messages on at least two links.

20 11. An interfacing method for processing data between a telephone switching system and an adjunct processor and for translating data message protocol comprising the steps of:

25 providing interface hardware including first and second connectors for connecting the interface to the telephone switching system and a third connector for connecting the interface to the adjunct processor; and

transmitting the data messages between the telephone switching system and the adjunct processor using at least two transmission links.

12. A method as defined in claim 11, further comprising the step of alternating the transmission of the data messages among said at least two links.

5 13. A method as defined in claim 11, further comprising the steps of:

receiving a message that one link has failed; and  
transmitting the remaining data messages on a remaining number of links.

10 14. A method as defined in claim 11, further comprising the step of filtering erroneous frames of data messages from the data messages.

15. A method as defined in claim 11, further comprising the step of validating the data messages.

15 16. A method as defined in claim 11, further comprising the step of splitting the data messages into subsets.

17. A method as defined in claim 11, further comprising the step of translating said data messages between API protocol and SMSI protocol.

20 18. A method as defined in claim 11, further comprising the step of combining data messages into sets.

19. A method as defined in claim 12 further comprising the steps of:

grouping the data messages in a first protocol into data message sets;

transmitting a first data message set from the telephone switching system through a first port to a first device driver algorithm;

5 transmitting a second data message set from the telephone switching system through a second port to a second device driver algorithm;

transmitting the first data message set from the first device driver algorithm to a first protocol stack algorithm;

10 transmitting the second data message set from said second device driver algorithm to a second protocol stack algorithm;

15 transmitting the first data message set from said first protocol stack algorithm to a splitting task algorithm;

transmitting the second data message set from said second protocol stack algorithm to said splitting task algorithm;

20 splitting the first data message set and the second data message set into data message subsets;

transmitting the data message subsets an application task;

translating the data message subsets into said second protocol; and

25 transmitting the data message subsets to an adjunct processor.

20. A method as defined in claim 19, further comprising the steps of:

receiving the data message subsets from the adjunct processor;

5 translating the data message subsets from said second protocol to said first protocol;

combining the data messages subsets into data message sets;

10 transmitting a first data message set to said first protocol stack algorithm;

transmitting a second message set to said second protocol stack algorithm;

transmitting said first data message set to said first device driver algorithm;

15 transmitting said second data message set to said second device driver algorithm;

transmitting said first data message set to the telephone switching system; and

20 transmitting said second data message set to the telephone switching system.

21. A method of improving the performance and reliability of translating data messages between data message protocols and transmitting data messages between a telephone switching system and an adjunct processor comprising the steps of:

5 providing an interface, wherein the hardware of said interface includes at least a first and second connectors for connecting the interface to the telephone switching system and a third connector for connecting the interface to the adjunct processor;

10 transmitting the data messages from the telephone switching system and the adjunct processor using multiple links.

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